

Claims

1. Handling system for removing a product, which has been made available in a cassette by a handler, from a cassette and for transferring the same to a processing chamber, **characterized in that** there is provided in the processing chamber (6) an internal handling device (9) having at least one fork (10) that can be moved with several degrees of freedom and that interacts with grippers (13) of an external handling system (2) so that the product transported by the external handling system (2) into the processing chamber (6) can be received by the fork (10) and placed by the same on a holding device.
2. Handling system in accordance with claim 1, **characterized in that** the fork (10) can be moved under the placement location of the wafer (4) on the holding device.
3. Handling system in accordance with claim 1 and 2, **characterized in that** a cooling plate (7) and a heating plate (8) are provided, which are located in the processing chamber (6).
4. Handling system in accordance with claim 3, **characterized in that** the cooling plate (7) and the heating plate (8) are arranged next to one another.

5. Handling system in accordance with claim 3, **characterized in that** the cooling plate (7) and the heating plate (8) are arranged one behind the other.
6. Handling system accordance with one of claims 1 through 5, **characterized in that** the internal handling device (9), consisting of a transverse guide (11) upon which the fork (10) is supported in a mount (12) such that it can move vertically and laterally, is located behind the plates (7, 8).
7. Handling system in accordance with one of claims 1 through 6, **characterized in that** the internal handling device (9) is accommodated in a cooled area of the processing chamber (6).
8. Handling system in accordance with claim 7, **characterized in that** the internal handling device (9) is associated with a cooling device for temperature control.
9. Handling system in accordance with one of claims 1 through 8, **characterized in that** instead of the use of two adjacent plates (7, 8), a multiple arrangement is provided in that multiple cooling and heating plates (7, 8) are arranged in a stack.
10. Handling system in accordance with claim 9, **characterized in that** the multiple arrangement can consist of 12 or 24 layers in a stack.

11. Handling system in accordance with claim 9 and 10, **characterized in that** the layers can be loaded sequentially or simultaneously (e.g. at one time).
12. Handling system in accordance with one of claims 1 to 11, **characterized in that** the fork (10) can be preheated.
13. Handling system in accordance with claim 12, **characterized in that** the fork (10) is in contact with the heating plate (7) for a long enough time before removal of a wafer (4) that a predetermined temperature is reached.
14. Handling system in accordance with one of claims 1 to 13, **characterized in that** an additional handling device is installed opposite the internal handling device (9).
15. Handling system in accordance with one of claims 1 to 14, **characterized in that** multiple processing chambers (6) are stacked on top of one another and/or next to one another.
16. Handling system in accordance with one of claims 1 to 15, **characterized in that** an option for removal of the product (wafer) is provided through the rear wall (14) of the processing chamber (6).

17. Handling system in accordance with claim 16, **characterized in that** the rear wall (14) of the processing chamber (6) is equipped with a closable opening that is associated with a second external handling device (handler) or another transport system.
18. Handling system in accordance with one of claims 1 to 17, **characterized in that** the processing chamber (6) and the transfer area of the FOUP are surrounded by a common covering (3) to achieve a dust-free area.
19. Handling system in accordance with claim 18, **characterized in that** the area within the covering (3) is purged with hydrogen/nitrogen at low overpressure.